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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,056	03/03/2004	Michael J. Otto	154-28553-US	4804

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EXAMINER	
MCAVOY, ELLEN M	

ART UNIT	PAPER NUMBER
1764	

MAIL DATE	DELIVERY MODE
09/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/792,056	OTTO ET AL.	
	Examiner	Art Unit	
	Ellen M. McAvoy	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *127-190* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *127-190* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/20/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission, an amendment to the claims and an IDS, filed on 20 July 2007 have been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 127-154 and 171-181 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukutani et al (6,448,207).

Applicants' arguments filed 20 July 2007 have been fully considered but they are not persuasive. As previously set forth, Fukutani et al ["Fukutani"] discloses an aqueous metal working fluid containing water and, as additives, a metal stearate including lithium stearate, a carbonate, a hydrogencarbonate, and a surfactant. See column 2, lines 18-46. The metal working fluid may further contain ethylene glycol and a rust inhibitor. The examiner is of the position that the aqueous metal working composition of Fukutani meets the limitations of the

claimed drilling fluid system "comprising" an alkali metal fatty acid soap. The metal working fluid of the prior art is especially useful for cutting tools including single point tools such as bites, and multiple point tools such as drills. See column 3, lines 19-29. The examiner is of the position that the claimed "drilling equipment" is clearly taught by Fukutani; the examiner sees no distinction between "drills" in Fukutani and "drilling equipment" in the claims. The claimed invention differs by the language "for prolonging life of drilling equipment" and "under conditions effective to maintain effective rheology and fluid loss control properties" which is not specifically set forth in the prior art. However, the examiner is of the position that lubricants in general act to prolong the life of the equipment so lubricated and an effective lubricant maintains effective rheology and fluid loss control.

Applicants argue that:

> "The examiner cannot establish that the method of claims 127-190 is a predictable use of prior art elements according to their established functions. The examiner cannot establish that it was predictable to use Fukutani's metal working fluid to perform drilling operations."

The examiner disagrees. The examiner is of the position that it would have been obvious to the skilled artisan to have used the aqueous metal working fluid composition of Fukutani, which is taught to be suitable for use with bites and drills of cutting tools, to provide lubrication for "drilling equipment". The examiner is of the position that cutting tools containing drills constitutes "drilling equipment".

Claim Rejections - 35 USC § 103

Claims 127-190 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (5,658,860) alone or incombination with Chesser et al (6,403,537).

Applicants' arguments filed 20 July 2007 have been fully considered but they are not persuasive. As previously set forth, Clark et al ["Clark"] disclose a well fluid emulsion having a water phase and an oil phase of a sulfurized alcohol and a naturally occuring fat, oil or derivatives thereof. Also disclosed is a method of lubricating drilling equipment used in conjunction with the drilling. Suitable naturally occuring fats and oils may be obtained from vegetable oils such as castor oil, coconut oil, corn oil, cottonseed oil, olive oil and sunflower oil. The preferred class of alcohols are glycols and polyglycols having a molecular weight in the range of about 200 to about 2000. See column 3, line 39 to column 4, line 21. Suitable fatty acids include include those having a carbon chain length of 8-30 carbon atoms. Clark teaches that derivatives of the fatty acids may be used including alkali metal derivatives. See column 5, lines 37-58. The examiner maintains the position that the drilling fluid of Clark clearly meets the limitations of most of the above rejected claims. Applicants' invention differs in some independent and dependent claims by adding one or more monomers comprising acrylamide. However, Chesser et al ["Chesser"] is added to teach that drilling fluid systems conventionally contain acrylamide monomers. Having the prior art references before the inventors at the time the invention was made it would have been obvious to have added the acrylamide monomers of Chesser to the drilling fluids of Clark if the known imparted properties were so desired. It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be

useful for the same purpose, here as drilling fluids, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Applicants argue that:

> "The examiner cannot establish that a drilling fluid system comprising 'a **continuous phase** comprising a dispersions comprising the claimed fatty acid soap comprising alkali metal selected from the group consisting of lithium, potassium, rubidium, cesium and combinations thereof the claims' (independent claims) was '**the predictable use of prior art elements**' found in Clark. Nor can the examiner demonstrate that it was an **established function** of the claimed fatty acid soaps to 'produce lubricated drilling equipment comprising one or more metal surface having improved lubricity'"

This is not deemed to be persiasive because, as set forth above, suitable fatty acids include include those having a carbon chain length of 8-30 carbon atoms and Clark teaches that derivatives of the fatty acids may be used including alkali metal derivatives. Applicants open ended claim language "comprising" allows for the addition of other additives to the aqueous composition such as the oil phase component in Clark.

The rejection of claims 1-15, 19-32 and 121 under 35 U.S.C. § 103(a) as being unpatentable over Mondshine et al (3,761,410) made in the previous office action is withdrawn in view of the amended claims limiting the fatty acid soap to an alkali metal fatty acid.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ellen M McAvoy
Primary Examiner
Art Unit 1764

EMcAvoy
September 18, 2007